

Table 6: **Integrase**

HXB2 Location	Author Location	Sequence	Immunogen	Species(HLA)	References
Integrase(16–30)	Pol(758–772)	HSNWRAMASDFNLPP	HIV-1 infection	human(DR supermotif)	[Wilson2001]
	<ul style="list-style-type: none"> • Epitope name: Pol 758. Eleven peptides were identified that had the HLA-DR supermotif, all were found to bind to MHC class II DR molecules and all elicited proliferative responses from multiple HIV-infected donors • This epitope binds eight HLA-DR alleles: DRB4*0101, DRB5*0101, DRB1*0901, DRB1*0701, DRB1*1101, DRB1*0405, DRB1*0401 and DRB1*0101, with an IC50 threshold below 1,000 nM • This epitope sequence is conserved in 68% of clade B isolates • 8/22 HIV infected individuals responded to this epitope (13/22 responded to some of the DR supermotif epitopes, the 9 non-responder peptides tended to also not have recall responses to rec HIV-1 whole proteins) 				
Integrase(172–186)	RT(899–913 LAI)	LKTAVQMAVFIHNFK	HIV-1 infection	human()	[Schrier1989]
	<ul style="list-style-type: none"> • Stimulates T-cell proliferation in HIV-infected donors 				
Integrase(173–187)	Pol(915–929)	KTAVQMAVFFIHNFKR	HIV-1 infection	human(DR supermotif)	[Wilson2001]
	<ul style="list-style-type: none"> • Epitope name: Pol 915. Eleven peptides were identified that had the HLA-DR supermotif, all were found to bind to MHC class II DR molecules and all elicited proliferative responses from multiple HIV-infected donors • This epitope binds seven HLA-DR alleles: DRB5*0101, DRB1*1302, DRB1*1101, DRB1*0405, DRB1*0401, DRB1*1501 and DRB1*0101, with an IC50 threshold below 1,000 nM • This epitope sequence is conserved in 94% of clade B isolates • 6/22 HIV infected individuals responded to this epitope (13/22 responded to some of the DR supermotif epitopes, the 9 non-responder peptides tended to also not have recall responses to rec HIV-1 whole proteins) 				
Integrase(196–210)	RT(923–937 LAI)	AGERIVDIIATDIQT	HIV-1 infection	human()	[Schrier1989]
	<ul style="list-style-type: none"> • Stimulates T-cell proliferation in HIV-infected donors 				
Integrase(214–228)	Pol(956–970)	QKQITKIQNFRVYYR	HIV-1 infection	human(DR supermotif)	[Wilson2001]
	<ul style="list-style-type: none"> • Epitope name: Pol 956. Eleven peptides were identified that had the HLA-DR supermotif, all were found to bind to MHC class II DR molecules and all elicited proliferative responses from multiple HIV-infected donors • This epitope binds twelve HLA-DR alleles: DRB4*0101, DRB5*0101, DRB1*0901, DRB1*0802, DRB1*0701, DRB1*1302, DRB1*1201, DRB1*1101, DRB1*0405, DRB1*0401, DRB1*1501 and DRB1*0101, with an IC50 threshold below 1,000 nM • This epitope sequence is conserved in 95% of clade B isolates • 8/22 HIV infected individuals responded to this epitope (13/22 responded to some of the DR supermotif epitopes, the 9 non-responder peptides tended to also not have recall responses to rec HIV-1 whole proteins) 				

HIV Helper-T Cell Epitopes

Integrase(215–227)	RT(942–954 LAI)	KQITKIQNFRVYY	HIV-1 infection	human()	[Schrier1989]
• Stimulates T-cell proliferation in HIV-infected donors					